

Kweku Tekyi Brown, PhD

171 Moultrie St, Charleston, SC 29409-6240

Phone: (843) 953-5454

Cell: (860) 617-2216

kbrown16@citadel.edu

EDUCATION

PhD, Civil Engineering, Transportation Engineering Clemson University, Clemson, South Carolina	August 2016
M.S., Civil Engineering, Transportation Engineering University of Connecticut, Storrs, Connecticut	August 2010
B.Sc., Civil Engineering, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana	May 2006

PROFESSIONAL EXPERIENCE (ACADEMIA)

Assistant Professor Department of Civil and Environmental Engineering The Citadel, The Military College of South Carolina	August 2016 - Present Charleston, SC
Instructor General Engineering Department Clemson University, Clemson, South Carolina	January 2016 - May 2016 Clemson, SC
Research Assistant Glenn Department of Civil Engineering Clemson University, Clemson, South Carolina	January 2012 - August 2016 Clemson, SC
Teaching Assistant Glenn Department of Civil Engineering Clemson University, Clemson, South Carolina	January 2012 - December 2015 Clemson, SC
Research Assistant Civil & Environmental Engineering Department University of Connecticut, Storrs, Connecticut	August 2008 - November 2011 Storrs, CT
Teaching Assistant Civil & Environmental Engineering Department University of Connecticut, Storrs, Connecticut	August 2008 - May 2009 Storrs, CT
Teaching Assistant Civil & Environmental Engineering Department Kwame Nkrumah University of Science and Technology	August 2006 - May 2007 Kumasi, Ghana

PROFESSIONAL REGISTRATION**Engineer-In-Training (EIT)**

State of Connecticut Department of Consumer Protection
#EIT.9957

November 2010

License

PROFESSIONAL EXPERIENCE (INDUSTRY)**Intern**

Civil Engineering Group
Milone & MacBroom Inc

May 2014 – August 2014

Greenville, SC

Intern

Transportation and Planning Department
Spartanburg County Planning

June 2013 – August 2013

Spartanburg, SC

Intern

Department of Transportation, Traffic and Parking
City of New Haven

June 2010 – August 2010

New Haven, CT

Intern

Structural, Surveying and Materials Departments
Twum-Boafo and Partners (Tetteh-Quarshie Interchange Project)

May 2004 – July 2004

Accra, Ghana

PROFESSIONAL MEMBERSHIP

American Society of Engineering Education (ASEE)

August 2016 - Present

Transportation Research Board (TRB)

Geographic Information Science and Applications (ABJ60) Committee
Young Member

March 2014 – Present

Transportation Research Board (TRB) Young Member

Statewide Transportation Data and Info Systems (ABJ20) Committee
Young Member

March 2014 – Present

Chi Epsilon (XE) – Civil Engineering Honor Society, Clemson Chapter

Spring 2013 – Present

Institute of Transportation Engineers (ITE)

2009 – Present

JOURNAL PUBLICATIONS

Maria Chrysochoou, **Kweku Brown**, Geeta Dahal, Catalina Granda-Carvajal, Kathleen Segerson, Norman Garrick, Amvrossios Bagtzoglou. *A GIS Indexing Scheme to Screen Brownfields for Area-Wide Redevelopment Planning*. *Landscape and Urban Planning* 105 (2012) pg 187-198

Brian Maleck, Wayne Sarasua, Jennifer Ogle, **Kweku Brown**. *A Methodology Using GPS to Inventory University Campus Parking*. *Journal of Transportation of the Institute of Transportation Engineers*; Volume 6 (July 2014), pg 55-70

CONFERENCE PROCEEDINGS

Transportation Research Board (TRB) Annual Meeting, Washington DC **January 2017**

Podium presentation: Analysis of Right-In, Right-Out Commercial Driveway Safety, Operations and Use of Channelization as Compliance Countermeasure.

GIS-T (Innovation in Transportation) **April 2016**

Podium presentation: Too Close To Home? An Investigation into Crash Proximity Relative to Drivers Residences in South Carolina (Author)

Transportation Research Board (TRB) Annual Meeting, Washington DC **January 2016**

Podium presentation: Safety Analysis of Driveway Characteristics Along Major Urban Arterial Corridors in South Carolina

Poster session: Safety Planning - Analysis of the Socio-Economic and Demographic Characteristics of At-Risk Driver Residential Areas in South Carolina (Author)

Poster session: Too Close To Home? An Investigation into Crash Proximity Relative to Drivers Residences in South Carolina (Author)

Transportation Research Board (TRB) Annual Meeting, Washington DC **January 2015**

Poster session: Assessment of Crash Location Improvements in Map-Based Geocoding Systems and Subsequent Benefits to Geospatial Crash Analysis (Author)

RESEARCH AND DEVELOPMENT GRANT AWARDS

“Regional UTC (Region 4) on Fast Act Research Priority: Reducing Congestion,” University Transportation Center, USDOT, Office of Research and Technology, Univ. of Florida, Auburn Univ., The Citadel, Florida International, Georgia Tech, Jackson State, Univ., N.C. State Univ., Tennessee Tech, Univ. of Alabama-Birmingham, Univ. of North Carolina

\$500,000 sub agreement of \$14.3m grant award, Dec. 2016

“South Carolina Center for Connected Multimodal Mobility,” University Transportation Center, USDOT, Office of Research and Technology, Clemson Univ., The Citadel, Univ. of SC, S.C. State Univ., Benedict College

\$500,000 sub agreement of \$7.8m grant award, Dec. 2016

RESEARCH AWARDS AND RECOGNITIONS

2016 High Value Research, Transportation Excellence Through Research, “Support for the Development and Implementation of an Access Management Program through Research and Analysis of Collision Data,” FHWA-SC-15-02, American Association of State Highway and Transportation Officials (AASHTO), Standing Committee on Research (SCOR), Research Advisory Committee, pp. 167-168.

MANUALS AND SOFTWARE USED

HCM, MUTCD, ITE MANUALS, ESRI ArcGIS 10.4, Maptitude 6.0, TransCAD 6.0, TSIS/CORSIM 6.1, VISSIM, HCS, PASSER V – 03, AutoCAD 2017, Civil 3D 2017, SAS 9.2, MICROSOFT: Word, Excel, Power Point, Access, Visio

AWARDS

2013 Dwight Eisenhower Graduate Fellowship	August 2013 – August 2014
Outstanding Graduate Lab Assistant Award (Glenn Department of Civil Engineering, Clemson University)	Academic Year 2013-2014
Outstanding Graduate Lab Assistant Award (Glenn Department of Civil Engineering, Clemson University)	Academic Year 2014-2015

TEACHING

The Citadel, The Military College of South Carolina

- Instructor: CIVL 103 Introduction to Civil Engineering; Fall 2016
- Instructor: CIVL 205 Surveying I; Fall 2016
- Instructor: CIVL 235 Surveying I Laboratory; Fall 2016
- Instructor: CIVL 101 Engineering Drawing; Spring 2017
- Instructor: CIVL 208 Geospatial Representation; Spring 2017
- Instructor: CIVL 238 Geomatics Laboratory; Spring 2017

Clemson University, Clemson, South Carolina

- Instructor: ENGR 2100 Engineering Graphics & Machine Design
- Lab Instructor: CE 2550 Geomatics Laboratory; Spring, 2012 – Fall, 2015

University of Connecticut, Storrs, Connecticut

- Lab Instructor: Geomatics and Spatial Measurements; Fall 2008 – Spring 2009

RESEARCH

Clemson University, Clemson, South Carolina (January 2012 – August 2016)**Dissertation:** Using Spatial Analysis to Identify High-Risk Driver Residential Areas in South Carolina

- Investigated demographic and socioeconomic characteristics of drivers involved in crashes using SC crash data and residential 9-digit zip code data of drivers

August 2013 – August 2016**Project Title:** Applying Successfully Proven Measures in Roadway Safety to Reduce Harmful Collisions in South Carolina

- Identify proven safety programs across the nation and evaluate their applications in South Carolina
- Identify potential areas to target safety programs using crash data analysis

December 2013 – August 2016**Project Title:** Support for the Development and Implementation of an Access Management Program through research and Analysis of Collision Data

- Geocoded and analyze South Carolina crash data
- Identify potential corridors with violations of access management standards

May 2013 – April 2014**Project Title:** South Carolina Lane Width Project – The effects of roadway lane and shoulder widths on roadway operations and safety in South Carolina.

- Developed GIS models to create roadway segments and aggregate crash data to created segments
- Ran driving simulation scenarios to determine driver gap acceptance and effect of lane widths on encroachment

July 2012 – December 2013**University of Connecticut, Storrs, Connecticut (January 2008 – November 2011)****Project Title:** Reversing Urban Sprawl - A Reclaimability Index Approach for Reviving Downtown Brownfields

- Developed a visual tool for prioritizing brownfields in Connecticut using GIS as part of an interdisciplinary research team
- Created a smart growth index for the state of Connecticut using GIS tools

August 2008 – July 2010**Project Title:** Nantucket Island Transportation Study

- Conducted transportation survey of residents and vacationers as part of assessment for need of parking structure

July 2009

REFERENCES

- Kevin Bower D. Graham Copeland Professor of Civil Engineering, The Citadel
Head, Civil & Environmental Engineering Department
171 Moultrie St, Charleston SC 29409
Email: bowerk1@citadel.edu O: 843-953-7683 C: 843-696-0372
- Wayne Sarasua Associate Professor, Clemson University
310B Lowry Hall, Clemson University, SC 29634
Email: sarasua@clemson.edu O: 864-656-3318 C: 864-650-4983
- Jennifer Ogle Associate Professor, Clemson University
212 Lowry Hall, Clemson University, SC 29634
Email: ogle@clemson.edu O: 864-656-0883 C: 864-633-9638
- Mashrur Chowdhury Associate Professor, Clemson University
216 Lowry Hall, Clemson University, SC 29634
Email: mac@clemson.edu O: 864-656-3313 C: 864-508-0002
- Paul Mills Regional Office Engineer
Milone & McBroom, 307B Fall St, Greenville, SC 29601
Email: paulm@miloneandmacbroom.com C: 864-230-4590